

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P596870

Luminaire Tested: **MSA-SA1B-835-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596870
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4233 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

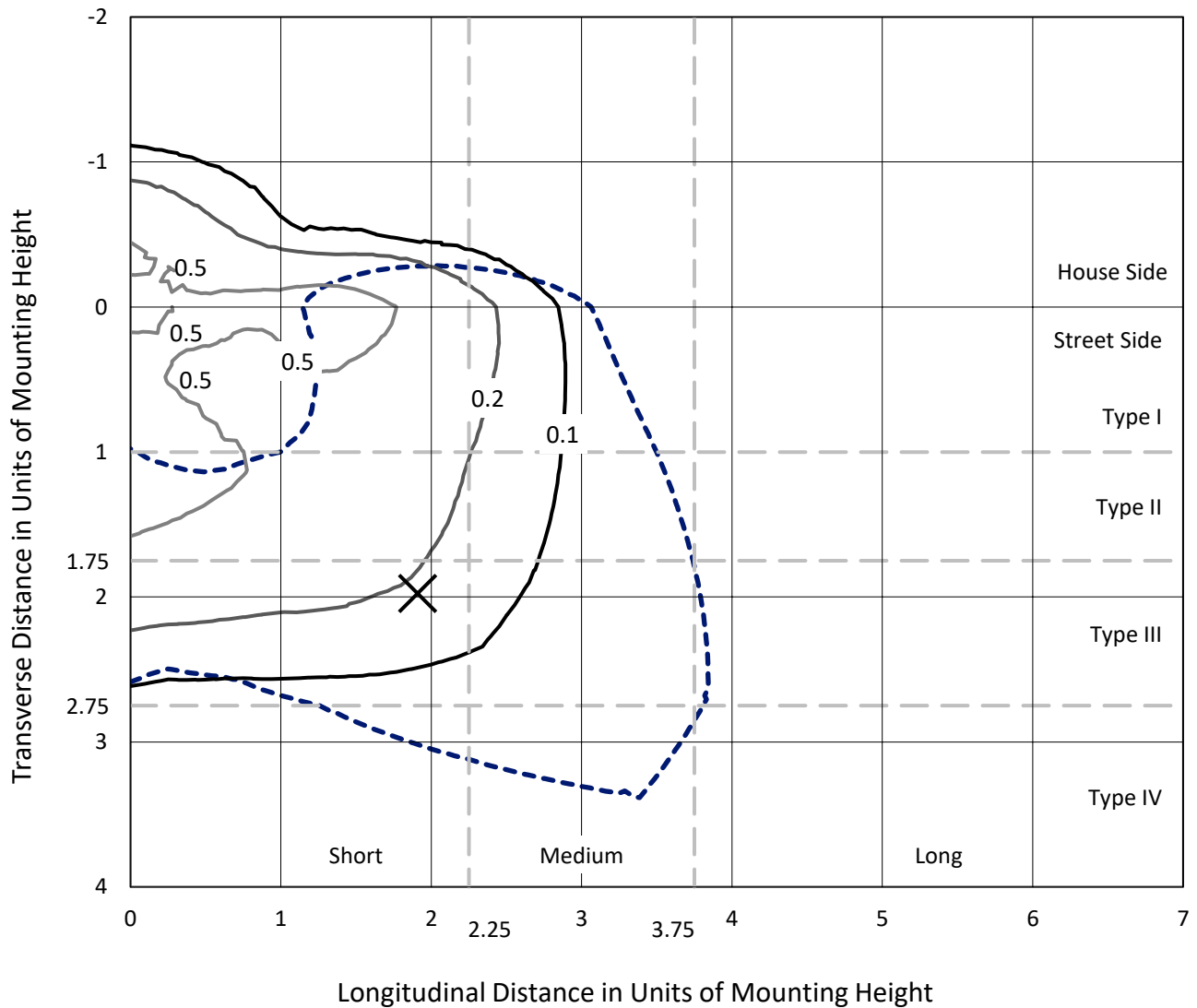
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

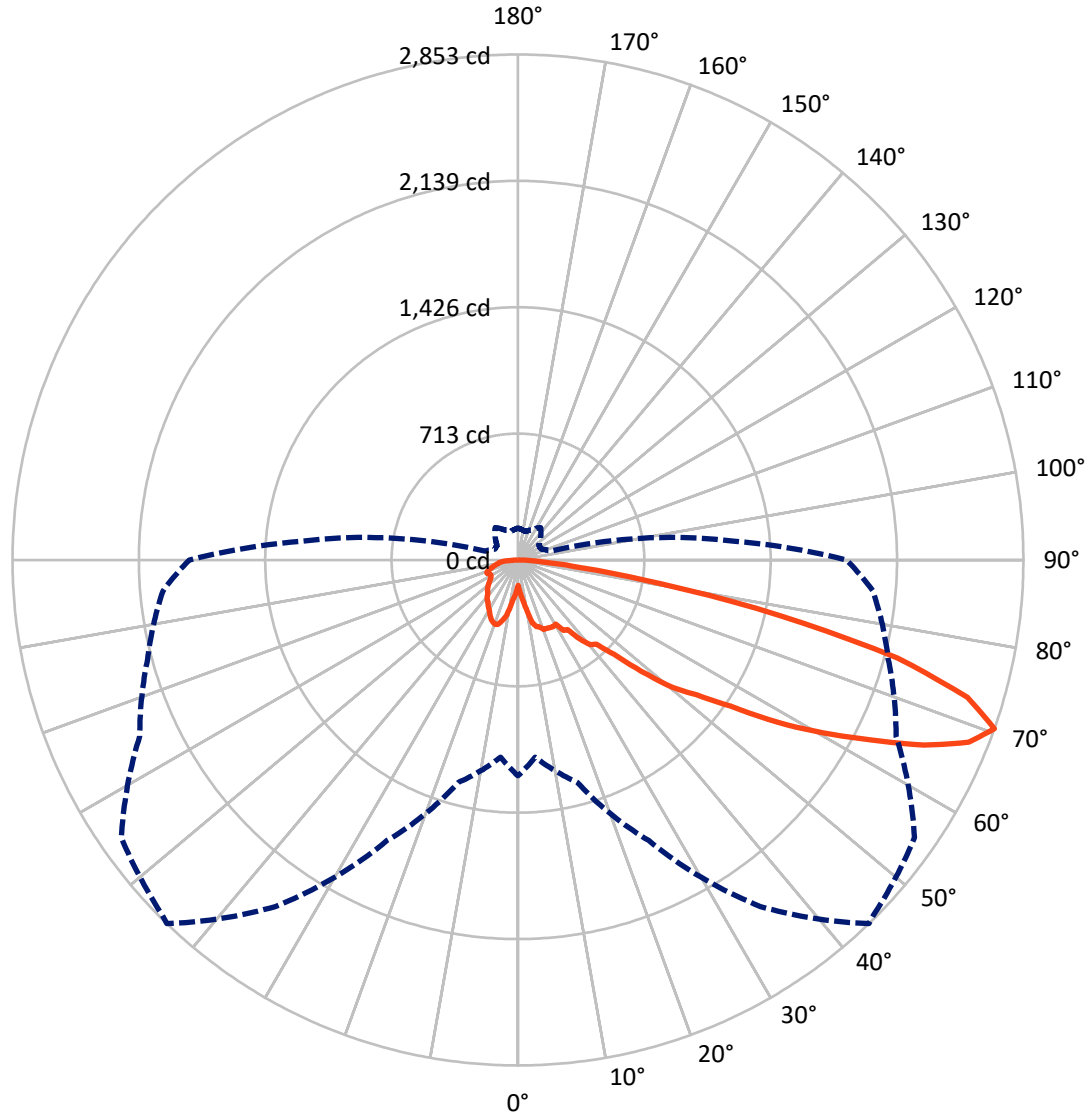
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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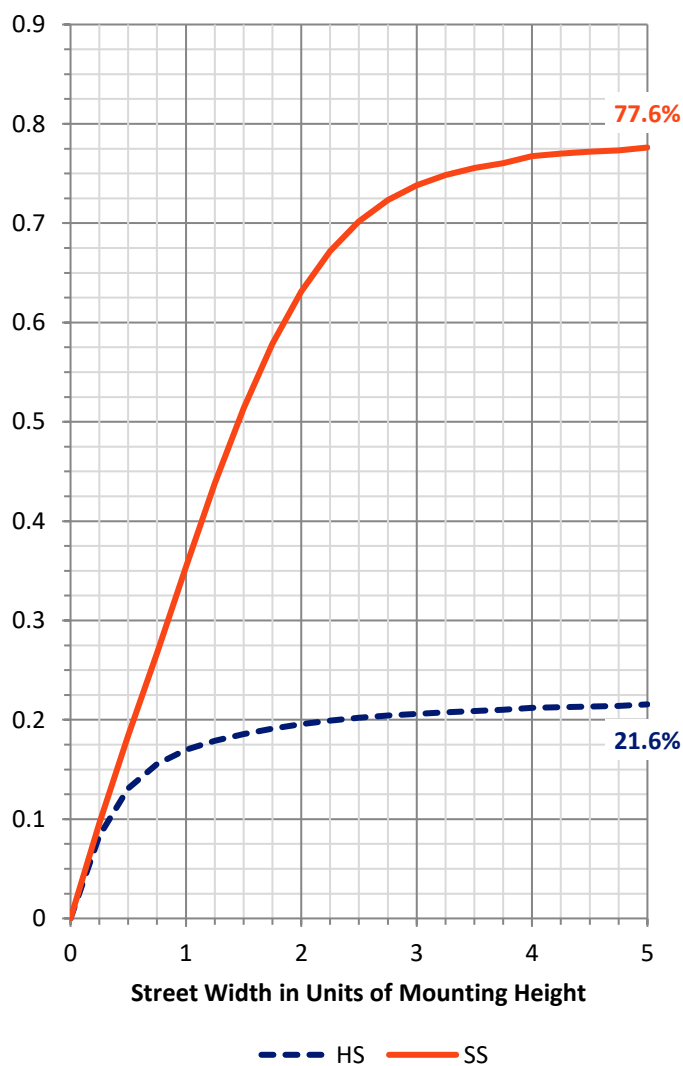
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	934.0	0.0	934.0
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	3299.0	0.0	3299.0
	% Fixture	77.9	0.0	77.9
Total	Lumens	4233.0	0.0	4233.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.6	0.5
10°-20°	103.9	2.5
20°-30°	194.1	4.6
30°-40°	311.6	7.4
40°-50°	526.0	12.4
50°-60°	937.3	22.1
60°-70°	1282.1	30.3
70°-80°	753.9	17.8
80°-90°	101.5	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4233.0	100.0
0°-180°	4233.0	100.0

Coefficient of Utilization



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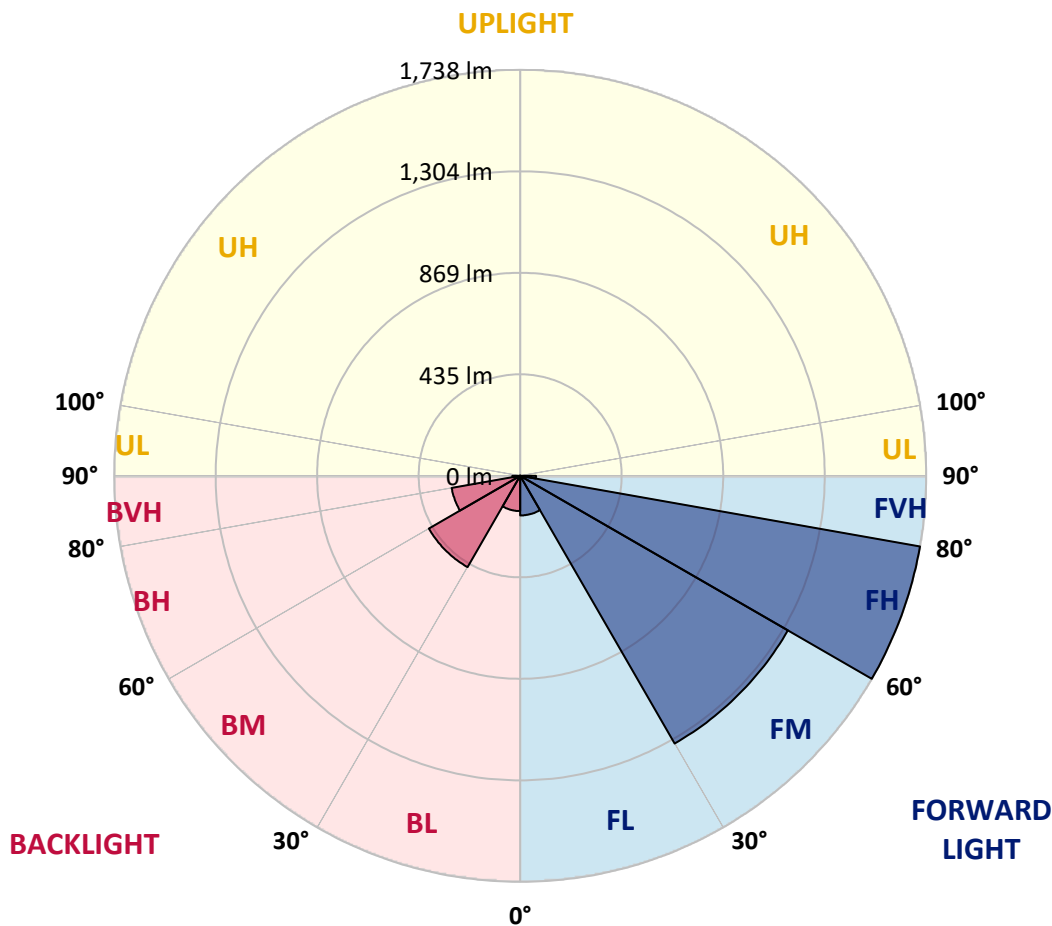
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	169.6	4.0			
FM (30°-60°)	1323.5	31.3			
FH (60°-80°)	1738.2	41.1			G1/1800
FVH (80°-90°)	67.7	1.6			G1/100
BL (0°-30°)	150.9	3.6	B1/500		
BM (30°-60°)	451.3	10.7	B1/1000		
BH (60°-80°)	297.8	7.0	B1/500		G1/500
BVH (80°-90°)	33.9	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9
2.5°	174.6	171.1	162.8	165.6	169.1	170.4	170.1	169.7	164.4	162.5	172.0
5°	237.3	229.6	223.6	221.1	213.1	206.9	203.1	213.1	211.6	214.2	220.8
7.5°	296.3	291.4	277.7	272.8	256.5	245.8	244.6	252.5	254.6	250.5	261.7
10°	334.3	326.0	323.2	311.5	300.3	298.5	297.5	293.8	288.8	288.5	278.4
12.5°	363.8	368.1	370.4	357.0	357.4	363.6	360.3	345.6	337.1	322.1	323.4
15°	416.7	423.0	405.1	396.6	380.3	389.7	388.4	376.1	374.9	365.2	353.9
17.5°	462.9	465.7	435.8	416.4	410.8	397.3	400.9	401.3	385.3	402.7	392.6
20°	466.7	476.6	442.2	403.5	420.2	418.5	419.0	415.5	394.5	423.2	419.3
22.5°	485.5	470.4	439.5	411.2	415.5	418.1	420.5	416.4	415.2	431.1	442.8
25°	482.0	477.1	445.9	421.9	422.5	423.0	424.2	436.7	435.3	457.0	463.1
27.5°	514.4	507.0	447.8	441.9	428.4	425.4	417.1	443.1	463.4	462.9	496.4
30°	576.2	568.6	492.2	475.0	450.6	420.4	436.3	471.1	487.0	492.4	534.9
32.5°	672.7	685.2	579.7	510.5	480.1	473.5	471.7	468.3	507.9	534.4	573.1
35°	811.2	801.3	682.8	586.3	511.1	482.9	486.7	507.9	554.9	572.1	607.8
37.5°	969.9	949.4	814.9	672.2	600.7	565.3	552.6	573.1	583.5	597.1	670.1
40°	1131.1	1081.1	944.5	785.2	654.5	627.8	616.7	591.5	616.0	643.4	736.3
42.5°	1286.8	1248.1	1085.6	920.1	745.1	649.8	643.8	619.1	695.0	723.9	831.7
45°	1450.0	1360.2	1230.2	1072.3	877.5	758.0	748.9	704.7	801.9	862.3	966.4
47.5°	1559.7	1476.5	1362.7	1195.9	988.5	938.8	921.6	846.0	934.1	1012.6	1174.5
50°	1663.4	1577.9	1458.3	1331.1	1189.3	1132.2	1095.5	969.5	1098.8	1226.6	1441.3
52.5°	1812.0	1735.5	1569.4	1467.3	1405.0	1264.6	1237.3	1168.1	1291.5	1463.8	1732.9
55°	1970.8	1866.5	1716.0	1659.5	1634.3	1454.5	1432.3	1388.2	1548.0	1706.7	2016.3
57.5°	2040.9	1932.1	1849.2	1815.3	1813.2	1730.4	1704.9	1674.2	1810.3	1914.9	2283.1
60°	2096.7	1979.9	1946.7	1965.6	2034.4	1979.9	1946.7	1919.6	2023.8	2120.8	2500.7
62.5°	2086.4	1969.3	1986.3	2043.9	2219.4	2235.3	2209.8	2144.2	2235.3	2289.5	2625.5
65°	1921.2	1812.9	1912.0	2048.8	2391.4	2518.9	2517.6	2345.9	2377.5	2377.5	2612.3
67.5°	1631.7	1519.6	1681.8	2005.9	2510.3	2743.7	2744.1	2559.7	2390.5	2368.6	2408.2
70°	1218.4	1116.9	1299.3	1746.9	2387.6	2852.5	2836.7	2732.3	2354.8	2163.7	2011.6
72.5°	727.8	662.1	830.0	1271.7	2036.6	2652.4	2694.4	2533.5	2155.7	1799.3	1438.0
75°	330.5	302.0	390.0	730.5	1454.0	2212.4	2258.1	2138.1	1712.2	1294.1	831.0
77.5°	141.5	133.8	170.3	324.0	801.7	1513.0	1606.5	1528.1	1160.1	752.1	367.6
80°	90.9	86.1	104.7	155.9	372.3	817.5	898.0	868.7	591.0	292.5	129.5
82.5°	54.3	52.8	69.9	97.9	203.1	359.8	405.4	416.2	245.4	131.2	74.1
85°	29.7	30.0	38.4	59.4	121.8	140.1	150.0	163.2	115.6	76.0	35.9
87.5°	9.9	11.5	15.4	24.1	43.4	39.6	39.7	46.2	48.8	31.6	11.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9	143.9
2.5°	173.6	170.4	162.5	163.0	165.9	166.6	167.5	162.5	161.4	171.0	171.8
5°	221.8	211.6	206.9	205.3	200.8	199.3	207.6	211.4	215.2	222.7	226.3
7.5°	260.5	249.1	240.6	232.8	226.2	222.3	236.4	247.2	253.8	269.0	276.0
10°	278.2	268.3	265.2	259.0	264.0	275.4	278.1	278.4	293.0	292.6	295.6
12.5°	313.5	307.0	296.8	299.1	312.2	324.0	320.7	325.8	331.0	343.5	337.8
15°	345.6	343.8	334.3	335.8	338.5	353.2	355.1	360.1	368.1	378.0	371.3
17.5°	385.1	384.4	361.2	359.1	365.2	379.6	375.1	366.2	392.6	403.2	400.4
20°	412.0	406.8	377.0	368.1	383.6	385.5	380.3	366.2	389.1	412.2	418.5
22.5°	434.4	428.4	397.6	380.3	377.2	378.0	378.0	375.4	386.7	405.6	405.4
25°	452.5	458.2	419.2	402.5	385.8	365.0	362.4	364.7	371.1	407.5	406.3
27.5°	497.8	482.0	426.4	414.0	379.8	347.0	354.1	357.5	359.6	399.5	406.1
30°	527.3	532.1	452.5	420.7	370.9	326.8	329.3	339.3	351.5	398.7	400.6
32.5°	567.0	556.6	493.1	409.4	347.3	314.7	310.2	323.7	341.7	384.6	389.8
35°	604.0	616.3	510.3	407.4	330.8	296.4	301.3	306.0	324.7	369.0	375.1
37.5°	690.8	662.7	558.5	397.3	317.1	287.2	282.0	289.2	305.1	339.3	353.4
40°	756.7	758.5	568.9	384.6	290.9	274.1	263.0	270.1	276.8	304.1	310.2
42.5°	880.5	842.7	594.5	356.8	274.4	254.3	248.0	251.1	252.2	263.6	273.7
45°	1037.9	949.2	604.5	319.5	252.7	246.1	233.4	231.9	226.2	227.7	236.6
47.5°	1255.7	1115.5	597.2	279.8	233.4	235.5	217.3	210.2	202.2	204.1	212.4
50°	1537.4	1327.9	596.7	246.1	220.3	221.6	206.7	193.9	185.9	189.9	197.2
52.5°	1853.5	1541.1	599.1	223.0	205.8	205.2	199.8	184.2	177.7	181.9	190.2
55°	2155.8	1724.4	617.2	208.5	190.9	192.1	194.2	181.0	173.9	177.7	186.4
57.5°	2419.0	1869.1	610.4	193.0	177.0	182.6	188.1	176.7	171.3	176.9	185.5
60°	2603.0	1936.3	557.0	178.3	166.8	174.4	185.2	176.2	175.5	187.5	197.9
62.5°	2670.1	1911.5	452.8	166.6	160.7	173.4	192.0	187.6	188.3	203.1	217.5
65°	2572.1	1780.9	337.8	159.2	156.0	178.4	207.6	194.4	184.8	197.0	210.2
67.5°	2293.1	1548.9	246.8	152.7	150.7	186.4	222.0	193.7	176.0	188.3	199.1
70°	1855.2	1222.6	191.1	144.6	143.5	181.0	223.4	188.5	166.4	174.4	180.5
72.5°	1271.2	837.1	158.3	136.8	131.2	160.4	212.1	176.9	155.0	159.7	164.7
75°	710.4	469.8	133.1	127.0	114.9	142.8	198.9	169.9	146.5	147.9	154.8
77.5°	318.8	203.2	113.0	114.2	100.1	126.4	181.7	158.8	133.5	130.3	137.3
80°	120.6	99.1	91.6	96.5	84.2	109.5	163.8	148.7	119.8	115.8	119.8
82.5°	69.9	60.1	68.0	74.3	66.8	100.7	156.4	139.5	105.5	95.5	98.9
85°	32.5	31.1	40.8	48.3	46.7	78.5	133.8	105.0	75.2	63.5	70.3
87.5°	8.5	9.5	14.4	17.0	17.4	26.9	51.5	39.1	29.3	22.2	21.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)